



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,596	08/16/2001	Nigel John Middleton	27020/37460	6505
4743	7590	07/19/2004	EXAMINER	
MARSHALL, GERSTEIN & BORUN LLP			NORDMEYER, PATRICIA L	
6300 SEARS TOWER			ART UNIT	
233 S. WACKER DRIVE			PAPER NUMBER	
CHICAGO, IL 60606			1772	

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/857,596	<b>Applicant(s)</b> MIDDLETON, NIGEL JOHN	
	<b>Examiner</b> Patricia L. Nordmeyer	<b>Art Unit</b> 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 June 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-21, 27-34, 38-40, 42-44 and 48-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-21, 27-34, 38-40, 42-44 and 48-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Repeated Rejections*

1. The 35 U.S.C. 103 rejection of claims 7 – 21, 27 – 34, 38 – 40, 42 – 44 and 48 – 50 over Middleton (WO 9/12958) in view of Nold (USPN 5,153,956) is repeated for reasons previously of record in the paper dated March 8, 2004.

Middleton discloses a breathable fabric or article formed from a sheet of impermeable material (Page 4, lines 14 – 19) with perforations in the first side of the flexible material (Page 4, line 20 to Page 5, line 6) that is worn next to the skin of the user (Page 8, line 29 to Page 9, line 3). Projections having a dome shape (Figure 3 B) of the same height due to the same size of perforations (Page 12, lines 29 – 32) are formed on the surfaces of the fabric and allow for the sides of the material to be in air communication with one another (Page 11, lines 18 – 23 and Figure 2a, #8). The projections are made from an elastomeric material such as neoprene rubber (Page 2, lines 27 – 30), which allows the perforations to remain open during the use of the article (Page 10, lines 5 – 13 and Page 17, lines 1 – 7). One embodiment of the article is made with a laminate where each lamina is made from a different material (Page 2, lines 30 – 32). Chambers, depressions, (Figure 3A, #7) are formed in the material by the layers of materials and perforations, where the perforations are arranged to allow air to flow from surface of the sheet to the other by increased pressure (Page 2, lines 10 – 21). At the location of each perforation, a dome surrounds the outer surface (Page 11, lines 18 – 23 and Figure 2a). The formed sheet is used for a variety of different articles including different types of clothing, orthopedic supports,

Art Unit: 1772

liners for casts and medical or veterinary dressings (Page 14, line 9 to Page 15, line 13). The layers are adhered on their surfaces by permanent adhesives (Page 10, lines 14 – 18). The breathable article or fabric is made from a laminate of materials, where the laminate includes woven, water-absorbent material (Page 4, lines 7 – 10) and vapor-permeable materials (Page 6, line 20 to Page 7, line 8). However, Middleton fails to disclose the spacer members projection from only the first or only the second major surface, the spacer members being discontinuous, the spacer members being continuous, the continuous spacer member extending across substantially all of at least one side of the sheet and the spacer members comprising a network of ribs on the respective side or sides of the sheet.

Nold teaches a plurality of spacer members on the bottom surface, second surface, (Figure 2) which are located away from the through holes (Figure 2, #16) and permit the protrusions on the top surface to flex and bend when pressure is applied (Column 4, lines 49 – 59) in a cushioning layer (Column 5, line 31) for the purpose of supporting and lowering the amount of pressure between a body and a surface in order to help prevent bed sores.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the spacer members in Middleton in order to support and lower the amount of pressure between a body and a surface in order to help prevent bed sores as taught by Nold.

Art Unit: 1772

Regarding claims 8 – 11 and 27 – 31, it is well settled that a particular shape of a prior invention carries no patentable weight unless the applicant can demonstrate that the new shape provides significant unforeseen improvements to the invention. See *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947). Also, see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). In the instant case, the application does not indicate any new, significant attributes of the invention due to its shape, which would have been unforeseen to one of ordinary skill in the art. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to change the shape and location of the spacer members to make the continuous, discontinuous or in the shape of ribs to form cavities on second surface since the material is raised from the support surface. One skilled in the art would have been motivated to do so to allow a separation between the skin of the user from the fecal material deposited in the article.

Regarding new claims 50 – 64, the above rejection covers all of the claim limitations except for the plurality of flexible dome projections formed between the first sheet surface and the second sheet surface. The prior art element, projections having a dome shape (Figure 3 B) of the same height due to the same size of perforations (Page 12, lines 29 – 32) are formed on the surfaces of the fabric, is a structural equivalent of the corresponding element disclosed, the projections formed between the first and second sheet surfaces. That is, the prior art element performs the function, allowing for the sides of the material to be in air communication with one another (Page 11, lines 18 – 23 and Figure 2a, #8), specified in the claim in substantially the same manner as the function is performed by the corresponding element, the projections formed between the first and second sheet surfaces, described in the claim language. MPEP 2183.

*New Rejections*

*Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 39, 48, 49, 50 and 64 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 39 has been amended to add “ a plurality of second chambers open towards the second side, each of the first chambers being in alignment with an associated one of the second chambers; a boundary wall is common to the aligned first and second chambers as is defined by outwardly-extending dome projection providing a concavity directed towards said first side and a convexity directed towards said second side, said boundary walls” in lines 5 – 11 and “into the second chamber” in line 21. There is no support in either the specification or the drawings for the new claim language. The specification refers to first chambers on page 5, but refers to domes instead of second chambers. There is no mention of either a boundary wall or a concavity or convexity.

Claims 48 and 49 have been amended to add “ an external chamber”. There is no support in either the specification or the drawings for the new claim language since it fails to be mentioned in either location.

Both new claims 50 and 64 contain the language “ a plurality of flexible dome projections formed between the first surface and the second surface”, and claim 50 also contains “a second cavity directed in use towards the surface of a compressing object”, which fails to be supported by either the specification or the drawings. There is no mention of the projections being formed in between the surfaces, but refers to the domes being part of the second surface of the breathable article.

#### ***Response to Arguments***

4. Applicant's arguments filed June 7, 2004 have been fully considered but they are not persuasive.

In response to applicant's argument that the Nold reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., removing or adding material to the underside of the breathable article and adding material to the top side to form a plurality of spacers) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claim limitations state that the spacers are present on either the first or second sides of the sheets, never

Art Unit: 1772

both sides of the sheet. As long as the spacers are present on one side, sometimes called the second side in the claims, the limitations of the claims are met.

In response to Applicant's argument that neither reference teaches or suggest a plurality of flexible dome projections formed between a first and second surface of the sheet and a plurality of spacers positioned along the second surface to form a second cavity, please the above rejection.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (571) 272-



Art Unit: 1772


1496. The examiner can normally be reached on Mon.-Thurs. from 7:00-4:30 & alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia L. Nordmeyer  
Examiner  
Art Unit 1772

*pln*  
pln

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

7/14/04